

CLAIMS

We claim:

1. A method for migrating one or more data files stored on a source storage device to a target storage device, comprising:

5 receiving from a host a data processing request specifying a data file;

examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file; and

10 copying the source data file from the source storage device to the target storage device.

2. The method of claim 1, further comprising:

retrieving requested data from the copied data file; and

providing the requested data to the host.

15 3. The method of claim 1, wherein the source data file is stored in a file volume on the source storage device.

4. The method of claim 1, wherein the stub file is stored in a file volume on the target storage device.

20 5. The method of claim 1, wherein the target storage device comprises a NAS filer.

6. The method of claim 1, wherein the target storage device comprises a file server.

7. The method of claim 1, wherein the data processing request is received from the host via a network.

5 8. The method of claim 1, wherein the pointer identifies a logical location of the source data file in the source file volume.

9. The method of claim 1, wherein the pointer identifies a physical location of the source data file on the source storage system.

10 10. The method of claim 1, further comprising replacing the stub file with the copied data file.

11. A method for migrating one or more data files stored on a source storage device  
15 to a target storage device, comprising:  
receiving from a host a data processing request specifying a data file;  
examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file;  
20 determining a size of the source data file; and  
copying the source data file from the source storage device to the target storage device, if the size of the source data file does not exceed a predetermined limit.

12. The method of claim 11, wherein the source data file is stored in a file volume on the source storage device.

13. The method of claim 11, wherein the stub file is stored in a file volume on the  
5 target storage device.

14. The method of claim 11, wherein the target storage device comprises a NAS filer.

15. The method of claim 11, wherein the target storage device comprises a file server.  
10

16. The method of claim 11, wherein the data processing request is received from the host via a network.

17. The method of claim 11, wherein the pointer identifies a logical location of the  
15 source data file in the source file volume.

18. The method of claim 11, wherein the pointer identifies a physical location of the source data file on the source storage system.

20 19. A method for migrating one or more data files stored on a source storage device, to a target storage device, comprising:  
receiving from a host a data processing request specifying a data file;

examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file;

retrieving requested data from the source data file; and

5 providing the requested data to the host.

20. The method of claim 19, wherein the source data file is stored in a file volume on the source storage device.

10 21. The method of claim 19, wherein the stub file is stored in a file volume on the target storage device.

22. The method of claim 19, wherein the target storage device comprises a NAS filer.

15 23. The method of claim 19, wherein the target storage device comprises a file server.

24. The method of claim 19, wherein the data processing request is received from the host via a network.

20 25. The method of claim 19, wherein the pointer identifies a logical location of the source data file on the source storage device.

26. The method of claim 19, wherein the pointer identifies a physical location of the source data file on the source storage system.

27. A method for migrating one or more data files stored on a source storage device,  
5 to a target storage device, comprising:

accessing a target file stored on the target storage device, wherein the target file is a stub file that contains a pointer identifying a source data file stored on the source storage device; and  
copying the identified source data file to the target storage device.

10 28. The method of claim 27, wherein the source data file is stored in a file volume on the source storage device.

29. The method of claim 27, wherein the stub file is stored in a file volume on the target storage device.

15

30. The method of claim 27, wherein the target storage device comprises a NAS filer.

31. The method of claim 27, wherein the target storage device comprises a file server.

20 32. The method of claim 27, wherein the pointer identifies a logical location of the source data file on the source storage device.

33. The method of claim 27, wherein the pointer identifies a physical location of the source data file on the source storage system.

34. A system for migrating one or more data files stored on a source storage device to  
5 a target storage device, comprising:  
an interface for receiving from a host a data processing request specifying a data file; and  
a processor for examining a stub file stored on the target storage device that corresponds  
to the specified data file, wherein the stub file contains a pointer identifying a source data file  
stored on the source storage device that corresponds to the specified data file, and for copying  
10 the source data file from the source storage device to the target storage device.

35. The system of claim 34, wherein the processor additionally retrieves requested data from the copied data file, and provides the requested data to the host.

15 36. The system of claim 34, wherein the source data file is stored in a file volume on the source storage device.

37. The system of claim 34, wherein the stub file is stored in a file volume on the target storage device.

20

38. The system of claim 34, wherein the target storage device comprises a NAS filer.

39. The system of claim 34, wherein the target storage device comprises a file server.

40. The system of claim 34, wherein the data processing request is received from the host via a network.

5 41. The system of claim 34, wherein the pointer identifies a logical location of the source data file in the source file volume.

42. The system of claim 34, wherein the pointer identifies a physical location of the source data file on the source storage system.

10 43. The system of claim 34, further comprising replacing the stub file with the copied data file.

44. A system for migrating one or more data files stored on a source storage device to  
15 a target storage device, comprising:

an interface for receiving from a host a data processing request specifying a data file;

a processor for examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file;

20 wherein the processor determines a size of the source data file, and copies the source data file from the source storage device to the target storage device, if the size of the source data file does not exceed a predetermined limit.

45. The system of claim 44, wherein the source data file is stored in a file volume on the source storage device.

46. The system of claim 44, wherein the stub file is stored in a file volume on the  
5 target storage device.

47. The system of claim 44, wherein the target storage device comprises a NAS filer.

48. The system of claim 44, wherein the target storage device comprises a file server.  
10

49. The system of claim 44, wherein the data processing request is received from the host via a network.

50. The system of claim 44, wherein the pointer identifies a logical location of the  
15 source data file in the source file volume.

51. The system of claim 44, wherein the pointer identifies a physical location of the source data file on the source storage system.

20 52. A system for migrating one or more data files stored on a source storage device, to a target storage device, comprising:  
an interface for receiving from a host a data processing request specifying a data file; and



a processor for examining a stub file stored on the target storage device that corresponds to the specified data file, wherein the stub file contains a pointer identifying a source data file stored on the source storage device that corresponds to the specified data file, for retrieving requested data from the source data file, and for providing the requested data to the host.

5

53. The system of claim 52, wherein the source data file is stored in a file volume on the source storage device.

54. The system of claim 52, wherein the stub file is stored in a file volume on the  
10 target storage device.

55. The system of claim 52, wherein the target storage device comprises a NAS filer.

56. The system of claim 52, wherein the target storage device comprises a file server.  
15

57. The system of claim 52, wherein the data processing request is received from the host via a network.

58. The system of claim 52, wherein the pointer identifies a logical location of the  
20 source data file on the source storage device.

59. The system of claim 52, wherein the pointer identifies a physical location of the source data file on the source storage system.

60. A system for migrating one or more data files stored on a source storage device, to a target storage device, comprising a processor for accessing a target file stored on the target storage device, wherein the target file is a stub file that contains a pointer identifying a source data file stored on the source storage device, and for copying the identified source data file to the target storage device.

61. The system of claim 60, wherein the source data file is stored in a file volume on the source storage device.

62. The system of claim 60, wherein the stub file is stored in a file volume on the target storage device.

63. The system of claim 60, wherein the target storage device comprises a NAS filer.

64. The system of claim 60, wherein the target storage device comprises a file server.

65. The system of claim 60, wherein the pointer identifies a logical location of the source data file on the source storage device.

66. The system of claim 60, wherein the pointer identifies a physical location of the source data file on the source storage system.